

## Final Network Services Report

May 19, 2023

**Event:** IEEE 802 Wireless Groups Interim Session

**Venue:** Hilton Orlando Lake Buena Vista

**Dates:** May 15-19, 2023

### SUMMARY

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 10 meeting rooms, 2 foyers and 3 offices in the Hilton Orlando Lake Buena Vista (HOLBV). Linespeed is also providing a local document server synchronized in near real time with [mentor.ieee.org](http://mentor.ieee.org) and a landing page ([ieee802.linespeed.com](http://ieee802.linespeed.com)), which contains links to local documents, meeting schedule, registration and venue information

The local area network (LAN) supporting the meeting space is comprised of a main distribution frame (MDF) and five intermediate distribution frames (IDFs). Linespeed's wireless local area network (WLAN), comprised of 24 IEEE 802.11 a/g/n/ac/ax compliant access points is currently providing Wi-Fi 6e connectivity to 559 unique devices (laptops, tablets, smartphones, smartwatches, etc.) at this session.

IEEE 802W has contracted with HOLBV to provide a symmetrical 150Mb/s Internet circuit and a /29 CIDR block of public routable IPv4 address space for this event. Linespeed worked with HOLBV to increase access to 250Mbps of the venue's existing 1Gb/s Internet circuit.

Linespeed provisioned the network with redundant routers configured to failover in case of an outage.

Linespeed tested all Cat5 copper lines interconnecting IDFs and meeting room ports prior to deploying network hardware.

The network deployment diagram is shown in Figure 1.

Wireless client association counts for the week are shown in Figure 2.

Bandwidth utilization graphs for the past week, 48 hours and 24 hours are shown in Figures 3-5.

## WLAN DEPLOYMENT

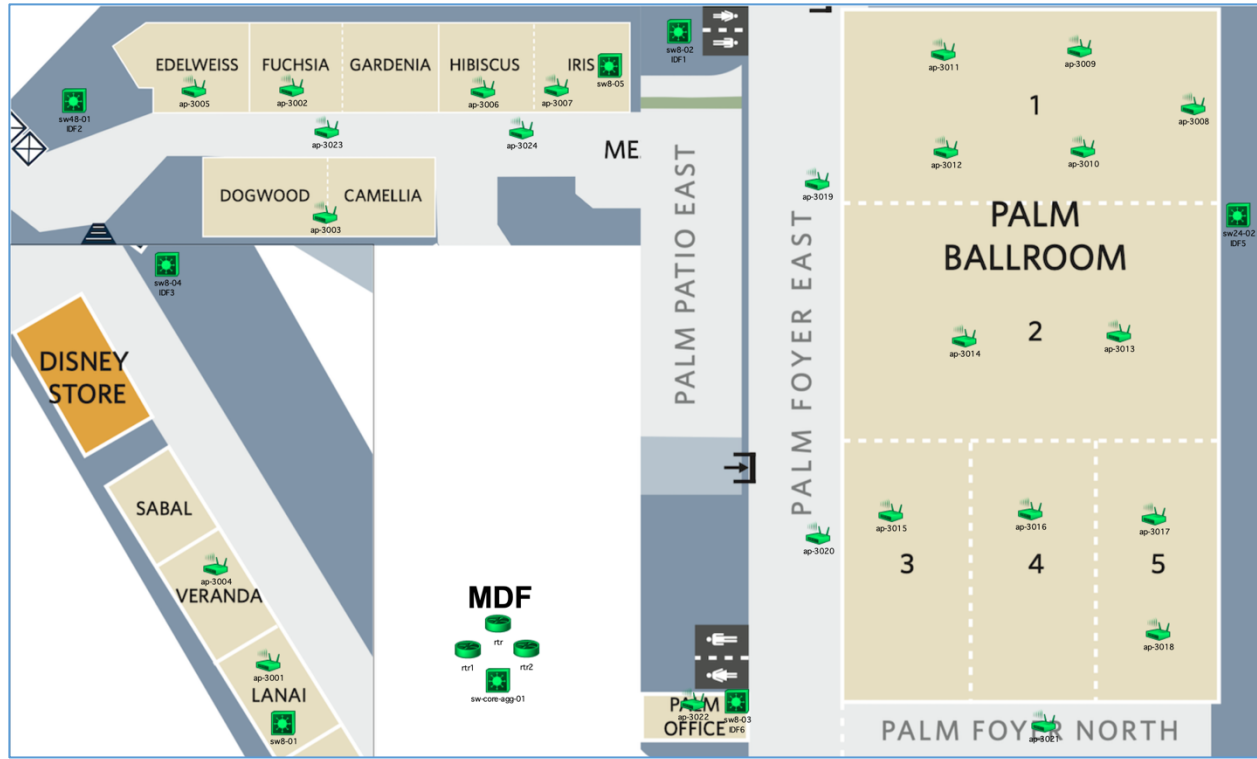


Figure 1. Twenty-four access points were deployed throughout the meeting space.

## WIRELESS CLIENT COUNTS

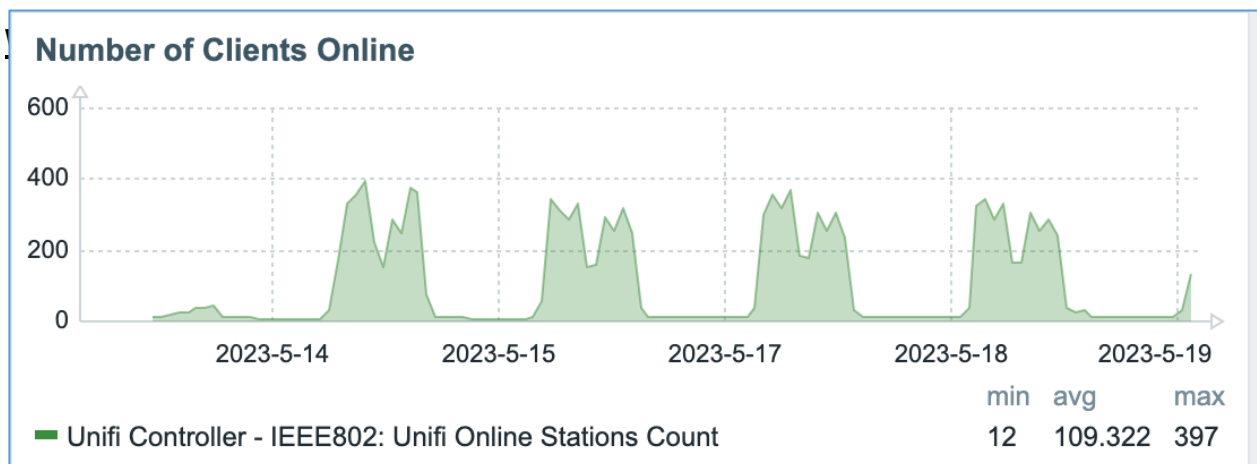


Figure 2. Client association counts during the week.

## BANDWIDTH UTILIZATION

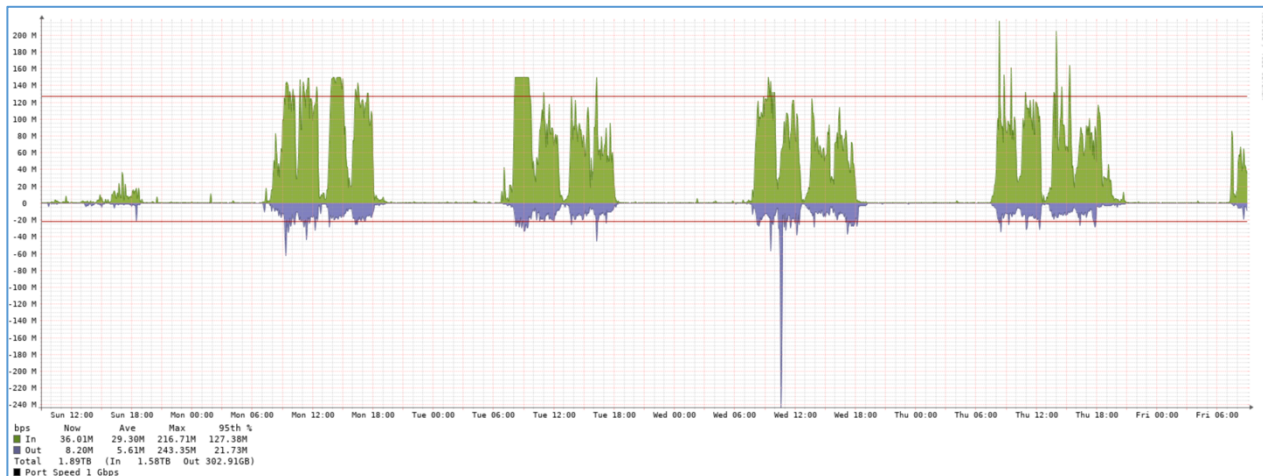


Figure 3. External Bandwidth: past week

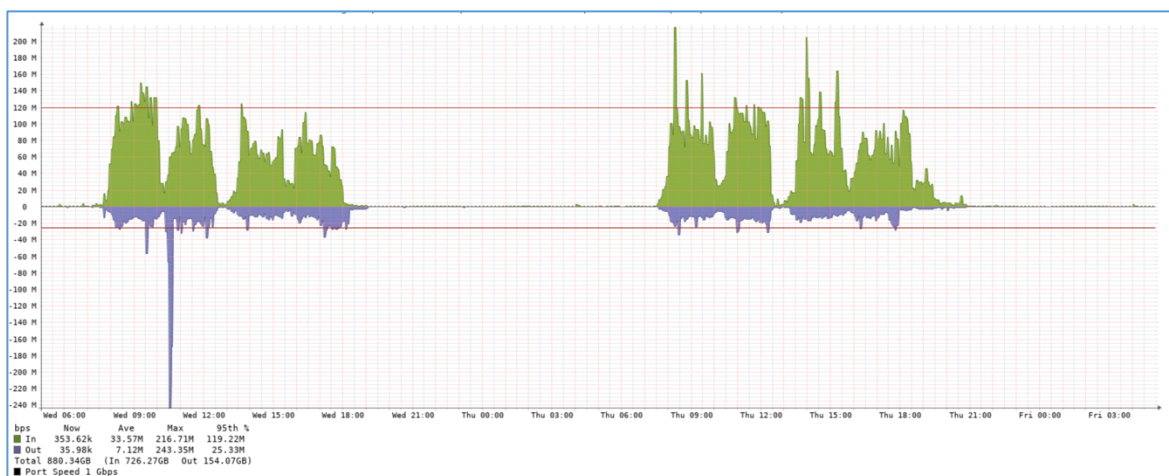


Figure 4. External Bandwidth: past 48 hours

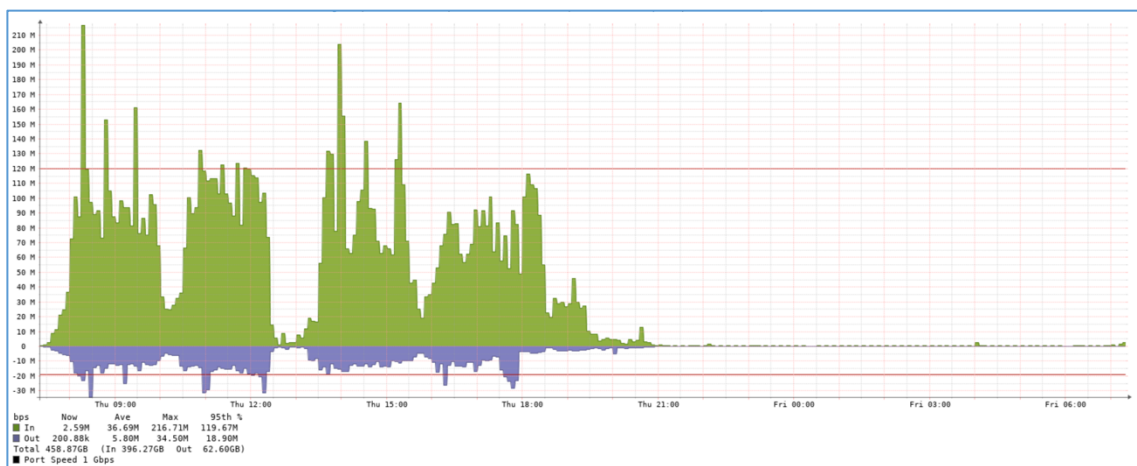


Figure 5. External Bandwidth: past 24 hours



## **FINAL STATISTICS**

- Total Internet data inbound: 1.58 TB
- Total Internet data outbound: 302.91 GB
- Inbound Internet bandwidth utilization
  - Peak: 2216.71 Mb/s
  - 95th Percentile: 127.38 Mb/s
- Outbound Internet bandwidth utilization
  - Peak: 243.35 Mb/s
  - 95th Percentile: 21.73 Mb/s
- Total wireless network associations: 559 unique devices
- Maximum simultaneous WiFi 6E 6GHz connections: 6